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**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

JAN - 7 1993

In the Matter of
Advanced Television Systems
and Their Impact upon the
Existing Television Broadcast
Service

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MM Docket No. 87-268

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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**Comments of the
NATIONAL ASSOCIATION OF BROADCASTERS**

The National Association of Broadcasters ("NAB")¹ hereby submits comments in response to the Commission's Memorandum Opinion and Order/Third Report and Order/Third Further Notice of Proposed Rule Making² ("Third Further Notice") in the above-referenced proceeding. In these comments, NAB discusses ancillary use of ATV channels and station identification. Specifically, NAB (1) believes ancillary use of the ATV channel will be technically feasible; (2) asserts that flexible use of the ATV channel for ancillary data transmission may crucially affect broadcasters' ability to finance ATV operations; (3) opposes mandating of a minimum operating schedule for ATV, and (4) recommends identifying ATV stations by their associated NTSC call signs with an HD suffix.

I. Introduction and Summary.

In the Third Further Notice, the Commission noted that NTSC currently allows ancillary use of the NTSC channel via mechanisms such as information capacity in the vertical

¹ NAB is a nonprofit, incorporated association of radio and television broadcast stations and networks. NAB serves and represents America's radio and television stations and all the major networks.

² MM Docket No. 87-268, Memorandum Opinion and Order/Third Report and Order/Third Further Notice of Proposed Rule Making, FCC 92-438 (released Oct. 16, 1992).

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blanking interval (VBI) and secondary audio programming (SAP) services.³ The Commission here seeks comment on "the technical feasibility and policy implications" of permitting ancillary uses of the ATV channel.

The Commission noted that excess data capacity could be used in one of two ways: (1) during times when the ATV channel is otherwise non-operational (such as overnight) and (2) on a non-interfering basis during ATV transmissions. The Commission asks whether a minimum operating schedule should be mandated for ATV if permission is granted for ancillary use of the channel during non-operational times.

In comments filed July 17, 1992 in this docket, Fox Inc. noted that use of excess data capacity for ancillary purposes could be a possible means of producing additional revenues for broadcasters.⁴ MSTV supported Fox's proposal in reply comments filed August 17, 1992, stating that permitting ancillary uses of excess data capacity that was not required for HDTV transmissions could provide broadcasters with additional revenues to help finance implementation costs associated with developing ATV transmission capability.⁵

NAB agrees. We believe that ancillary use of ATV channels may represent a potentially significant revenue source for broadcasters. This additional revenue may be critical to insure that broadcasters can financially sustain a successful ATV transition. NAB further believes that ancillary use of ATV channels using any of the five proponent ATV systems currently under consideration is technically feasible and that the FCC Advisory Committee is properly considering the provision of flexible capability for ancillary data transmission in their deliberations on a recommended system. Commission policies on ancillary use of ATV channels should be structured with as much flexibility as possible to

³ Third Further Notice at ¶ 77.

⁴ See Comments of Fox, Inc. in MM Docket 87-268, filed July 17, 1992 at 13-14.

⁵ See Comments of the Association for Maximum Service Television in MM Docket 87-268, filed August 17, 1992 at 26-27.

allow the full potential of this revenue source to develop and consequently assist broadcasters' ability to speed the introduction of ATV service to the public.

II. Ancillary Data Transmission During ATV Transmissions is Technically Feasible Using Any of the Current Proponent ATV Systems.

Technical feasibility for ancillary use of data capacity during operational times of ATV service implies that the system selected as an ATV standard by the FCC must include the capability to support ancillary data transmission. Fortunately, all five proponent ATV systems incorporate, by design, the ability to transmit significant amounts of ancillary data. In fact, each of the five proponent systems offers a basic capacity in excess of 100 kbps for ancillary data transmission.⁶ In addition, the proponent ATV systems incorporate, to varying extents, the ability to flexibly allocate available data capacity to audio, video or ancillary uses as needed by service demands.⁷

The FCC Advisory Committee recognizes the importance of incorporating flexibility in the ATV standard and is actively considering this as a factor in their deliberations. Three of the ten selection criteria considered by the Advisory Committee (extensibility, interoperability and scope of services and features) relate to different aspects of flexibility.⁸ The FCC addressed the issue of flexibility in the Second Report and Order/Further Notice of Proposed Rule Making, directing the Advisory Committee to address ATSC's proposal for flexible apportioning of audio and data services.⁹ In the Third Further Notice, the Commission

⁶ See, for example, Final Report of FCC ACATS PS/WP4 at Reference #1 -- Interoperability Assessments (prepared for PS/WP-4 by Stellacom, Inc.).

⁷ See generally, Minutes and attachments of the Technical Sub-Group of the ATV Special Panel Meeting on Proposed ATV System Improvements, November 18-20, 1992.

⁸ Fifth Interim Report of the FCC Advisory Committee on Advanced Television Service (March 24, 1992) (Fifth Interim Report) at Appendix D Annex II.

⁹ See MM Docket 87-268, Second Report and Order/Further Notice of Proposed Rule Making (Second Report and Order), released May 8, 1992 at ¶ 79.

acknowledged and further encouraged Advisory Committee efforts in this regard.¹⁰ NAB is confident that, based on this direction from the Commission and the emphasis within the Advisory Committee in this area, the ATV standard ultimately selected by the Commission will provide technical feasibility for flexible ancillary use of the ATV channel during ATV transmissions.

III. Flexible Use of the ATV Channel For Ancillary Data Transmission May Crucially Affect Broadcasters' Ability to Finance ATV Operations.

The success of an ATV transition will be better assured if broadcasters are afforded flexibility in the permissible ancillary uses of the ATV channel. Such flexibility would permit (1) data transmissions simultaneously with ATV transmissions in a way that does not degrade ATV quality; (2) data transmissions during times when the ATV channel is otherwise non-operational, and (3) flexible allocation of available channel capacity to audio, video or ancillary data transmissions as needed by service demands. With a flexible Commission policy, the broadcasting industry could perhaps develop the alternate revenue streams sorely needed to assist in financing the considerable costs associated with developing a high quality and attractive ATV service.

A. The television industry is in a weakened financial condition.

In NAB's Petition for Partial Reconsideration ("NAB Petition") filed June 22, 1992 in this docket, NAB noted that, given the weakened financial state of the television industry, it will be difficult for many television stations to find the funds to invest in first generation ATV equipment.¹¹ We there presented supporting overall financial statistics for the television broadcast industry in 1990. Newer statistics now available on the financial condition of the

¹⁰ Third Further Notice at ¶ 82.

¹¹ See NAB, Petition for Partial Reconsideration, filed in MM Docket 87-268, June 22, 1992 at 22-23.

television broadcasting industry in 1991 are also revealing.¹² 1991 was generally a worse year for broadcasters than 1990, partially due to the economic recession and partially due to the long term trends of the industry:

- one-quarter of all affiliated (with the three major television networks) stations lost more than \$477,959 in 1991.
- one half of independents lost more than \$314,790, with one quarter losing more than \$1,617,695 in 1991. In the smaller markets, the average independent lost substantial amounts, e.g., \$666,103 in ADIs 21-40 and \$760,103 in ADIs 101+.
- One half of all UHF stations (affiliates and independents) lost more than \$268,380 in 1991, with one-quarter losing more than \$1,428,107. The average UHF station lost \$525,392.

To insure a successful ATV transition broadcasters must be permitted the flexibility to take advantage of all potential revenue generating mechanisms. Previously, NAB requested that the Commission afford flexibility to broadcasters with respect to ATV simulcasting requirements and deadlines for construction of ATV facilities.¹³ In the instant proceeding, NAB seeks flexibility from the Commission in permitting ancillary use of the ATV channel. Such ancillary use may be a critical element in providing additional revenue to help fund the costs of initiating and maintaining an ATV service, especially in the early years of ATV transition.

B. The Commission should not mandate a minimum operating schedule for ATV.

Broadcasters have every incentive to provide the maximum amount of ATV programming desired by the consumer audience. Clearly, however, at least during the initial

¹² 1992 NAB Television Financial Report, Washington, D.C.: National Association of Broadcasters, 1992.

¹³ See NAB Reply Comments in Docket 87-268, filed August 17, 1992 at 2-4 (simulcasting flexibility) and NAB Petition at 25-29 (construction deadlines).

phase of ATV service, there are some parts of the day (such as overnight) when the value of delivering ATV programs will be quite low and the data capacity associated with the ATV channel could be used more effectively for other revenue-generating purposes. For example, terrestrial broadcasting may constitute an ideal delivery platform for data broadcasting applications. Data broadcasting generally refers to delivery of any kind of digital data or text information from a central source to a large, potentially unlimited number of receivers. It is premature to judge how much time might be used for this non-ATV activity; the needs of the fledgling data broadcasting industry are largely unknown and successful applications of data broadcasting are only now beginning to emerge. However, the Commission should not constrain broadcasters from participating in activities such as data broadcasting, which could be instrumental in providing the extra revenue necessary to support investment in ATV equipment in the early years of ATV transition when ATV viewership is low. Thus, NAB sees no reason to mandate a minimum operating schedule for ATV at this time.¹⁴ And, a maximum operating schedule for ancillary use of the ATV channel during times when the ATV channel is otherwise non-operational should not be mandated either.

C. Use of ATV channels for ancillary data transmission could provide significant revenue for broadcasters.

Several technologies exist today which use VBI and other data capacity within the NTSC transmission format to provide data broadcasting services. These services are a growing source of secondary revenue for television broadcasters. Among services already being provided include teletext, scrolling billboards, credit card verification, and interactive games. As an example, Silent Radio of Chatsworth, California provides a scrolling LED display distributing news, sports, and stock information to banks, hotels, restaurants, and bars in 42 markets in the U.S. using VBI capacity on local television stations. Local broadcasters

¹⁴ While opposed to the concept of a minimum operating schedule for ATV, we note that the current Commission rules for NTSC transmissions [Section 73.7340(a)(2)] are not particularly burdensome, requiring after 36 months of operation and thereafter, a minimum of only two hours of programming per calendar day and a minimum of 28 hours per calendar week.

receive revenue¹⁵ from Silent Radio for broadcasting the 1200 bps signal which updates the information on the display.

New applications for data broadcasting in conjunction with NTSC transmissions continue to be developed. Insight Telecast has developed an electronic program guide which transmits its data to a simple home receiver using a VBI line on a local broadcast signal. Interactive Systems Inc. has developed a technology called Video Encoded Invisible Light (VEIL[®]) for transmitting data over an NTSC channel in the active video portion of the video signal. This technology is used to enable viewers in the home to interact with regularly scheduled TV programming. In particular, the possibilities for interactive services have been expanded by the Commission's decision to open spectrum for the Interactive Video Data Service (IVDS) in the 218-219 MHz band. The return link portion of this band could be used in conjunction with VBI and other space in the NTSC signal to provide services which require a high data rate forward link with occasional or low data rate return link requirements.

With the built-in data capacity of an ATV signal, data broadcasting business opportunities are likely to expand. According to the consulting firm of Frost & Sullivan, combined data broadcasting industry revenues from both services and equipment sales are expected to grow from about \$180 million in 1990 to over \$400 million in 1995.¹⁶ Because ATV holds the promise of higher data rates and more reliable data transmission than NTSC, broadcasters could be well positioned to reap a substantial portion of those revenues, offsetting costs for ATV equipment, if flexible policies are put in place to foster this opportunity.

If enough flexibility is provided for higher data rate broadcasting, consumers could benefit by an explosion of new products. Recently, Prodigy demonstrated a prototype cable

¹⁵ The amount of revenue depends on a number of factors including the size of the market but typically runs between \$50,000 and \$100,000 per year for a single VBI line.

¹⁶ Frost & Sullivan, The U.S. Market for Satellite Data Broadcasting (1990).

television-based system for delivering data to home computers at 1 Mbps.¹⁷ This will allow Prodigy to solve one of their main customer complaints, slow data delivery over the existing 9600 and 2400 bps lines. Prodigy hopes to have this service available by 1994. Additionally, Jeen International is developing a device called a Teledata Recorder (TDR) for allowing consumers at home to access and extract information from large computer information services such as databases and bulletin boards.¹⁸ Using VBI lines from several TV stations as the delivery vehicle for the data, the TDR device will allow users to selectively capture, store, retrieve and display information on a television screen. The TDR will be operated by remote control and will have the capacity to store over a thousand pages of user-selected information at a time.

Broadcasters currently supplement their revenues by effectively utilizing available capacity in the NTSC signal to provide ancillary data broadcast services. This business is expanding. Increased data capacity in ATV signals can help fuel this expansion if flexible policies are adopted which will allow broadcasters the opportunity to participate aggressively in this market. The revenue from these services may be a critical factor in enabling stations to bear the high cost of transition to ATV and thus will promote a more rapid deployment of ATV service.

IV. ATV Stations Would be Best Identified by their NTSC Call Signs with an HD Suffix.

NAB supports the Commission's proposal to assign ATV stations the same call sign as their associated NTSC stations currently in use, with the addition of a two-letter suffix.¹⁹ NAB agrees with the Commission that using the same call sign allows broadcasters to take advantage of the name recognition and good will associated with their present call signs. The

¹⁷ Prodigy to Launch Cable-Based Data Service in 1994, Communications Daily, Nov. 25, 1992 at 1.

¹⁸ Prototypes of several data broadcasting systems, including the Teledata Recorder, were demonstrated at NAB's TV Group Executive Forum in Washington, D.C. on October 2, 1992.

¹⁹ Third Further Notice at ¶ 30.

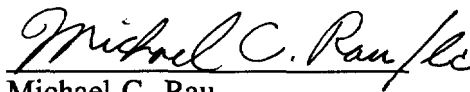
suffix -HD is particularly appropriate since it would distinguish between the NTSC and ATV channels and emphasizes, as a well known and promotable acronym for high definition, the quality improvements associated with the new ATV service.

V. Conclusions.

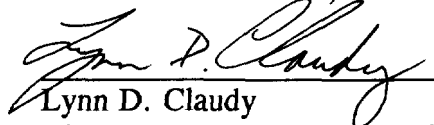
The use of TV channels for ancillary data transmission will be technically feasible both during ATV operations on a non-interfering basis and during times when the ATV channel is otherwise non-operational. Numerous applications for data broadcasting services are currently emerging which could be provided by broadcasters on their ATV channels. These services could supply broadcasters with additional revenues to help facilitate rapid implementation of ATV service. NAB thus urges the Commission to adopt policies permitting broadcasters flexibility in using their ATV channels for ancillary purposes. Mandating a minimum operating schedule for ATV is not necessary or appropriate at this time. ATV stations will be best identified by their NTSC call signs with an -HD suffix.

Respectfully submitted,

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